



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,506	08/30/2001	Pai-Hung Pan	2919.SUS (96-499.2)	4348
24247	7590	04/28/2006	EXAMINER	
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			FOURSON III, GEORGE R	
			ART UNIT	PAPER NUMBER

2823

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/944,506	PAN, PAI-HUNG	
	<b>Examiner</b>	<b>Art Unit</b>	
	George Fourson	2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-14 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 7 and 9-12 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 13, 18, 19, 21, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 5, 14, 20 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/11/06</u>   | 6) <input type="checkbox"/> Other: _____                                    |


The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4,6,13,18,19,21,23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of Morita or Mandelman et al.

Morita discloses in figure 72 trench isolation structure contacting the surface of the active surface area adjacent the trench formed by element 37, including a flat surface, and a portion of element 11 contacting silicon nitride buffer film layer 30 (figure 72).

Mandelman et al discloses in the process step between the intermediate products of figures 4a and 4b trench isolation structure contacting the surface of the active surface area adjacent the trench formed by element 22c, including a flat surface, and a portion of element 11 contacting silicon nitride buffer film layer 12.

Applicant argues that silicon oxide film 11 and the trench isolation structure 3(37) of Morita et al are separate structures and therefor can not be both encompassed by "trench isolation structure". However, together silicon oxide film 11 and the trench isolation structure 3(37) of Morita et al are 1) an organization of parts dominated by the general character of the whole isolation structure, 2) the manner of construction of the isolation structure and 3) the aggregate of elements of an isolation structure (see definition below, <http://m-w.com/cgi-bin/dictionary> (2006/04/21)).

Main Entry: **structure**   
Pronunciation: 'str&k-ch&r

Art Unit: 2823

Function: *noun*

Etymology: Middle English, from Latin *structura*, from *structus*, past participle of *struere* to heap up, build -- more at STREW

**1** : the action of building : CONSTRUCTION

**2 a** : something (as a building) that is constructed **b** : something arranged in a definite pattern of organization <a rigid totalitarian *structure* -- J. L. Hess> <leaves and other plant *structures*>

**3** : manner of construction : MAKEUP <Gothic in *structure*>

**4 a** : the arrangement of particles or parts in a substance or body <soil *structure*> <molecular *structure*> **b** : organization of parts as dominated by the general character of the whole <economic *structure*> <personality *structure*>

**5** : the aggregate of elements of an entity in their relationships to each other

Applicant argues that in the intermediate structure of Mandelman et al thermal oxide 11 is not part of the isolation structure because it is formed before material 22c. However, the term "structure" does not preclude an aggregation of parts formed at different times.

Applicant is also directed to the response to arguments in the office action mailed 1228/05.

Claims 5,14 and 20 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-12 are allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened


Art Unit: 2823

statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Fourson whose telephone number is (571)272-1860/272-1860. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith, can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George Fourson  
Primary Examiner  
Art Unit 2823

GFourson  
April 21, 2006